

ABSTRACT OF THE DISCLOSURE

A liquid etchant and a method for roughening a copper surface each capable of providing copper with a roughened surface increased in acid resistance regardless of a chlorine ion in a short period of time, to thereby ensure firm adhesion between a copper conductive pattern and an outer layer material during manufacturing of a printed circuit board, resulting in the manufacturing being highly simplified. The liquid etchant includes a main component containing an oxo acid such as sulfuric acid and a peroxide such as hydrogen peroxide. Also, the liquid etchant includes an auxiliary component containing a tetrazole such as 5-aminotetrazole or the like, or a 1,2,3-azole. The liquid etchant permits a copper surface to be roughened in an acicular manner.

459811_1.DOC